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TRANSCRIPT

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SESSION 3: GOALS OF AND APPROACHES TO BIOETHICS EDUCATION

DR. WAGNER: I believe we have everybody in the room, so let's get underway.

We're turning our attention now to the goals of and approaches to bioethics education and we will follow the same format, introducing you one by one, asking for your statements, and then when we get through, we will enjoy conversation with you.

And we're going to hear first from Dr. Steven Joffe. He is the Emanuel and Robert Hart Associate Professor of Medical Ethics and Health Policy at the University of Pennsylvania Perelman School of Medicine. He serves as Vice Chair of the Department of Medical Ethics and Health Policy and directs the Penn Fellowship in advanced biomedical ethics. He is also Associate Professor of Pediatrics at the Perelman School and serves as Chair of the Children's Oncology Group Bioethics Committee, as a member of the U.S. Food and Drug Administration's Pediatric Ethics Subcommittee and as a member of the National Academy of Sciences Committee on Federal Research Regulations and Reporting Requirements. All terrific background to help us out today and we look forward to your comments. Welcome.

DR. JOFFE: Great. Thank's so much, Dr. Wagner, Dr. Gutmann and members of the Commission for inviting me to speak today.

I'm going to be talking about the role of empirical methods in bioethics education. And, really, the background to this is a conversation about the role of empirical methods and empirical research in bioethics practice, bioethics scholarship, bioethics deliberation. So there's really three questions that I need to tackle.

First, why do bioethicists need to understand empirical research or be able to engage with empirical research in the first place? Second, how do bioethicists work in their roles, their various roles, intersect with empirical scholarship? And then we get to the question of what do they need to understand and what does education require in order to help them understand that?

I do want to make a note, which is that I focus on bioethicists who contribute to academic discourse, to public policy discussions and to public conversation. My focus is not really on bioethicists who are primarily involved in clinical consultation in hospitals or other settings like that.

A paper that I found very helpful in thinking this through, one that I commend to you, is by Millie Solomon, who's now President of the Hastings Center about ten years ago in the Hastings Center report where she talked about the role of the social sciences as it intersects with bioethics. And, actually, I can't really sum up the theme of my remarks better than she did in the opening to this article. "A familiar criticism of bioethics charges it would be more conceptual than practical, having little application to the real world. In order to answer its critics and keep its feet on the ground, bioethics must utilize the social sciences more effectively. Empirical research can provide the bridge between conceiving a moral vision of a better world and actually enacting it."

So I want to suggest that there are two broad roles that empirical research and empirical methods can play in bioethics scholarship and bioethics debate, and then we'll drill down on each of them in the next few minutes.

The first of which is to inform ethical analysis. My argument here is that normative analysis is actually the better for engaging with empirical research and empirical scholarship.

And the second, I think perhaps more obvious, is to help us move from moral vision to ethical behavior and effective justifiable policy.

So what do I mean by "informing ethical analysis"? Well, again, there's at least four ways and here I'm relying heavily on Milly's framework.

First is to identify new moral problems, ones that we may not have suspected before that require ethical analysis. So as an example, in the 1980s, Paul Applebaum and his colleagues, a noted psychiatrist and bioethicist, documented evidence of what they called therapeutic misconceptions among research participants. And this has led to a sustained normative debate and lots more empirical scholarship over the past 30 years on this notion of therapeutic misconception and what exactly it is that people must understand if they're going to give valid consent to be participants in research.

Second is that empirical scholarship can help us to clarify both known and suspected moral problems. So in my own field of pediatrics, as an example, we recognize that children and adolescents should be engaged in medical decisions in developmentally appropriate ways. And we also recognize that we rarely accomplish this as well as we should. It's not possible to have an informed discussion about this topic without a nuanced understanding of how you would measure capacity and how capacity might vary according to age and other characteristics of individual children.

A third, I think particularly important, is to help us test consequentialist claims. Often, perhaps even most of the time, at least when ethics articles are published in general medical literature, the commentary is really focused on the potential consequences, both positive and negative, of adopting this technology or adopting this practice. These arguments for consequences often in the absence of empirical data or in the presence of a lot of speculation about what might happen. Empirical research is really the only way that we can demonstrate which of these concerns or promises actually turn out to be valid. So, for example, many commentators express concerns when donation after cardiac death protocols were being considered for organ transplantation about the ways in which that might actually harm critically ill patients, adversely affect families, and we needed empirical research to begin to help us tease out some of those claims.

And finally, empirical research can help us to evaluate the real work implications of nonconsequentialist principles. So, for example, the principle of respect for autonomy of persons, which is substantiated at least in part through the mechanism of informed consent, is one of the core principles of medical ethics.

A focus on respect for autonomy and informed consent can fit some patients from some cultural backgrounds better than others. How these practices based in respect for autonomy intersect with patients' cultural backgrounds is itself a question for empirical research.

The second broad category where empirical methods play a critical role is help us move from moral vision to ethical behavior and policy. Empirical research can help us to document the gap between ideals and practice.

So here is an example: Authoritative bioethical statements by the early 1980s were articulated in the claim that there was no moral difference between, on the hand, withholding life support and, on the other hand,

withdrawing life sustaining treatment. Yet for at least a couple of decades, empirical research and many physicians continue to believe and to act on the belief that withdrawing treatment was more ethically problematic than withholding it, a clear gap between norms and practice.

Second can help us top tease out causal mechanisms underlying some of the moral problems that we see. So here, as an example, health disparities across population. For example, comparing health outcomes among African American and White patient groups are really a persuasive and profound moral problem; yet in order to begin to address them, we need to know something about the evidence underlying the causal mechanisms.

Empirical research has helped us to clarify these mechanisms, including such things as failure to refer for appropriate treatment and the fact that African American and white patients, to a certain large extent, tend to get their healthcare from very different healthcare institutions.

Third, empirical research can help us to provide data to facilitate accountability and change in ethically important ways. For example, the development of psychometrically valid methods to assess patients' experiences with care, including such ethically salient dimensions as, quote, my doctor treated me with dignity and respect, a common question that's asked of patients after they've had a healthcare experience had become a critical, if clearly incomplete, measure of quality for healthcare institutions.

And finally, evaluating interventions to address moral problems. For example, the moral problem of inadequate or poor quality end-of-life care. So in the 1990s, the support study, not the neonatal support study, but the original support study, tested a package of interventions to improve end-of-life care for seriously ill patients, a serious problem that was well recognized at the time. Although in that case, that package of interventions was not associated with significant improvements and study outcomes. It was clearly essential to evaluate it in a rigorous way before widely implementing it in practice. So all of these are important rules for empirical scholarship.

Now, bioethicists play a whole range of different roles in their lives and work and so they engage in empirical research in diverse ways and this has implications for education and maybe themselves investigators who conduct empirical research. They may engage with it critically in order to inform their normative or policy oriented scholarship. They frequently function as advisors to others who are in positions of decision-making power and occasionally they actually are policymakers themselves. And in all these ways, empirical research is going to play an important role in their professional lives.

So what does it actually need to encompass? What needs to be the part of -- or the core of bioethics education? I think the first thing I would say at the most theoretical level is an understanding of principles of inference. I'm not talking about at the very deep level that a Ph.D. statistician might engage with it, but it certainly does include ability to understand at least basic statistical methods as well as threats to inference, such as things like chance, confounding and bias.

Bioethicists needs to be able to engage with both observational and experimental research designs and the core methodologies of social science, including such things as survey methodology and qualitative research methods.

Now, I want to be clear that what they need to understand really occupies a spectrum and depends upon the roles that they play and they work. At the one end of the spectrum, some bioethicists need to be able

to understand and critically evaluate empirical research performed by others. That calls for a certain level of understanding. And then at the other extreme are those bioethicists who are actually engaged in designing and conducting and leading their own social science research or other empirical research and they need to be quite sophisticated about methodology, also understanding their limits and being able to partner with the true methodologists, who are the Ph.D. social scientists and the statisticians and others who really understand the methods better than most of us do.

In my last minute, I want to call out research ethics as a special case. The reason to do that is because research ethicists or people who engage with research ethics make or influence really important decisions on policy as well as on individual research ethics cases through their academic writing, their service on committees, at national institutional or on other levels, consulting to investigators, et cetera.

And so this -- in order to do this and do it well, it requires really quite sophisticated understanding of challenging topics like cluster randomization, Baysian adaptive approaches and things like the methods underlying equivalence or non-inferiority designs.

So here, as an example, the current debate on the ethics of comparative effectiveness research trials needs to be really very well informed by a substantial understanding of the issues underlying cluster randomization.

Some final thoughts. In my view, high quality, high impact bioethics requires at least a few things. One is interdisciplinarity. None of us lives in a disciplinary silo -- just be one more moment -- second, translation to policy and practice; and third, grounding and a nuanced appreciation of the relevant empirical realities. And each of these requires that bioethicists be educated and prepared to engage to understand and sometimes to engage in empirical scholarship. Thank you.

DR. WAGNER: Actually, thank you very much.

Let's go to our next speaker. It's Dr. Margaret Little. She is director of the Kennedy Institute of Ethics and a member of the Philosophy Department at Georgetown University. She is a fellow of the Hastings Center and has twice served as visiting scholar and resident at the NIH Department of Bioethics. Among her other projects, she launched the Kennedy Institute's introduction to bioethics MOOC in 2014 and is leading the design and development of Ethics Lab -- it's a formal title, Ethics Lab -- an experimental lab space on campus whose team-based approach unites people on the front lines of complex moral issues with expert bioethicists and experienced designers to create real world change. Thank you for joining us today. Look forward to what you can share with us.

DR. LITTLE: Thank you so much for having me. I'm so delighted that the Commission is taking a look at this issue about education and bioethics.

So one thing we know about bioethics is it's incredibly complicated for anybody to deal with. You have to understand the science, including the statistics. You have to understand a little bit about how policy gets made at different levels and you have to understand and be willing to grapple with values and ethics. Okay. That's a tall order.

And if we're going to have a citizenry, either in the United States or world, who can participate and feel good about our conversations and help us make wise decisions, they need some way of starting to grasp

that kind of complexity.

So the last two years at the Kennedy Institute, we've done a few experiments in how to do education for the citizenry, as we think about it, at three different scales. So I just want to share the experiments with you and some thoughts about what went behind the design of them.

So the first one I'm sharing with you called "conversations in bioethics" is that at the university-wide level. So we take a topic each year. One year it was "medical error and apology." This last year it was "personal genomics." And in the fall semester, we recruit students and classes to study the issue to try to see conversations across campuses. In the spring we convene an event in our beautiful Gaston Hall a gallery of the student work and then a panel. And what we decided to do, instead of bringing sort of experts to teach, we convene a conversation of panelists who are intellectually deep on the issue, but also have a personal connection. So it's about weaving stories so that everybody gets engaged with the human dimension as well as sneaking in a little lesson on the science, policy and value.

I'll just give an example. This last year when we did personal genomics, one of the panelists was a genetics anthropologist from National Geographic. World's best title, he's explorer in residence. And he shared stories of literally traveling the globe to get people to donate their blood to get DNA sequencing done so that we could build the database to develop this out of Africa story of deep ancestry of humans, okay, the migration patterns.

We had a woman who herself was tested positive for BRCA1 and who documented in an extraordinary film her own personal journey of deciding what to do, including when to have prophylactic surgery versus having children. Very compelling.

And then we had a guy, actually found him from a TED talk. So he's a neuroscientist and happened to get his sequence -- his genome sequence and found out that he tested positive on all 16 alleles that predict for psychopathy. He happens to be a neuroanatomist who does -- he's very good at imaging and interpreting brain anatomy. Imaged his head as the neuroanatomy of psychopathy. Tells his family; he's says they're not surprised. Okay? His mother shares with him that they have seven murderers in his family's history, including -- wait for it -- Lizzie Borden. Yet he is a successful scientist, married his high school sweetheart, a loving grandfather. He is very quirky, by the way. Okay? Very quirky. But he calls himself a pro-social psychopath. He is different. He lacks emotional empathy. He can't be shamed or embarrassed, so he's really fun to interview. Okay? But he doesn't harm anybody. I mean, he really doesn't.

So he ends up being a great way to teach people about epigenetics because he did have a very loving household and a loving upbringing. So we talked about the studies about how do genes get expressed. Great conversational quality.

Second experiment was the MOOC you mentioned. So now we're at a very different scale. Now we're talking global. And this is just a screenshot from -- this is the second iteration of the MOOC, so these are people who are participating. We have 5,000 active users this year, as you can see, all over the globe. Last year we had, I got to say, learners from every continent, including the one covered by ice because we had somebody from the Antarctic Research Station taking a MOOC. Okay? So as you all will have heard, very active conversations, massive open online courses, massive global, open -- they're free online

courses -- carry tremendous potential to help democratize education. So anyone with an Internet connection can access the world's experts on a variety of topics. That's pretty amazing.

Also by now well-known are the challenges of this kind of learning platform and especially for a topic like bioethics. So, first of all, we're dealing not with a lot of quantitative stuff, which MOOCs were really sort of designed for. We are doing humanities and values and ethics about which -- on topics about which good and reasonable people disagree.

Okay. So success in learning here is not about what answer you give, but the depth at which you reason it through. And we can't judge that on a MOOC. I don't believe there are any models out there; though some say there are. I don't think so. You can't get the kind of writing-based learning or the kind of in-depth discussions, which is how we really practice and learn bioethics. You can't do it. You can have discussion forum. We have great ones. But it's not the same thing as a mentor-lead discussion in a classroom.

On the other hand, there are some really cool things that MOOCs can do in addition to scale that you can't do face to face. So one of them is here's me giving a lecture on -- you see Unit 6 abortion? So we go there. Okay? Not until the middle of the MOOC where we've got a sense of the community of online learners and we've established some kind of trust.

But any rate, here's one thing you can do if you're watching this and learning that you can't do if you're taking a class with me: You can hit rewind. I talk really fast. You didn't quite get it. You also can watch a transcript while you're watching. That's how my mom liked to do the MOOC. Okay? You can also search. Didn't she say something about autonomy? You can search and click back to that. You can also decide your own pathway to learning when you're doing a MOOC.

So we embrace all participants, from those who want to do a deep dive and watch every video, take every little -- we call them quizlets because we don't think we can assess. They're just really scaffolding your engagement with the material. So you get a certificate of completion at the end.

Or we welcome people who are picky eaters; that is, they are interested in three of the topics and they really don't want to slog through physician-assisted suicide.

So it's low entrance to learning and exposure. As opposed to thinking I have to take a whole class and it matters whether I get an A, we really want people to be able to do the full entree, main course, desert, or just go in for an appetizer, to continue the food metaphor.

So what we did, we designed a course from the ground up, seven faculty. We did not just take an existing course and put a camera in the middle. Everything was designed for what can you do that takes advantage of online learning.

I'll just give one example. So you look at the empirical literature behind attention online and what things detract from it and what things enhance. And one thing you see is there's a graph and it is at minute nine -- so you guys are close on the ten-minute mark -- where attention drops precipitously. And this is with some of the most engaging videos. It's not about engaging us; it's about length when you're on a computer. So all of our content was delivered through three- to six-minute videos.

Now, that was very interesting getting faculty, all of us, to figure out how do we divide up in sort of bite size -- anyway, so it makes you very conscious about your learning goals.

We also did a ton of visual annotations. So you take a video and then we hired a -- basically a cartoonist. So you can do -- you can demonstrate at very high quality conceptual relations and that really helps visual learners. So lots of learning styles can be supported on this.

The other thing I will just mention is one thing you do on a MOOC that you can't do in a classroom -- could you go back to that one picture -- who is in the conversation? So we have Muslims talking to Jews, talking to Christians, talking to atheists on this MOOC about abortion. And they're doing it in the most respectful manner.

When we did the unit on disabilities, we had people who were themselves hearing impaired. We had somebody who chose to have a deaf baby. So it wasn't just an abstract issue. So that conversation is pretty cool.

Last one I'll mention. So Ethics Lab, innovation studio on the campus where we're trying to bring design thinking and philosophy together so that when students take classes here, they're not just being consumers of knowledge; they're learning the material by having to actively design something of value for the real world.

So it's a way to take people from being passive learners to not just being active learners, but to actually being people who have to have accountability for making the world better.

And the judgment of the projects, which are all team built, is not the faculty. It's outside people. So the students design something and then we get outsiders in to do crit. And those students learn a lot about what a candid crit really looks like.

Just one -- a few pictures from Ethics Lab. One of the things we did this last semester in the studio, we joined a science policy class, an ethics class and a communications class in Ethics Lab. Half the time the students spent in their own classes getting deep disciplinary knowledge, and half the time they're in studio working in teams with students from each of those classes on projects that they chose. Here we're showing their spitting in -- they were dealing with personal genomics, so we decided if you want to get tested by 23andMe, which does ancestry data now, we'll let you, but you have to think through and write about your experience and how you decided to do it. Thanks.

DR. WAGNER: Thank you. Thank you very much.

Our conclusion to -- our final speaker in the panel, Dr. Connie Ulrich. We thank you for being here. She's associate professor of bioethics in nursing at the Department of Behavioral and Health Sciences at the University of Pennsylvania School of Nursing with a secondary appointment in the Department of Medical Ethics and Health Policy at the School of Medicine.

Dr. Ulrich was the first postdoctoral nurse fellow trained in bioethics at the National Institutes of Health, Department of Bioethics. Her areas of expertise include research and clinical ethics and empirical bioethics.

Welcome to you.

DR. ULRICH: Thank you. Thank you so much. Thank you for inviting me to comment on the role of bioethics education in nursing. I'm honored to be here today and I thank the Commission for including nursing in this important dialogue.

My comments focus on three important issues. First, the value of nursing to the public and public discourse on ethical issues; second, the ethical issues that nurses encounter that require bioethics education; and third, the role of bioethics education in preparing the next generation of nursing professionals at all levels.

Every person in this room will encounter the skill, savvy and ingenuity of a nurse at some point in life. Today, more than 3 million individuals are licensed to practice nursing in the United States, with 2.6 employed in nursing. More than 250,000 nurses also have advanced degrees and practice as nurse practitioners, nurse midwives or nurse anesthetists or have become nurse scientists. So nurses represent the largest group of healthcare professionals dedicated to the care, safety and well-being of their patients with more than 60 percent of nurses called "staff nurses" or those who work at the bedside of patients within hospital settings; thus, they are a critical component in the delivery of high quality care in this nation because without them, patient care suffers and patient safety is compromised.

Year after year, the public consistently ranks nurses as one of the most trusted groups of professionals for their honesty and high ethical standards. It is no surprise, however, that nurses face some of the most complex and challenging ethical issues in clinical care by virtue of their bedside presence and the time that they spend directly with patients and their families. The everyday stress and strain of caring for ill patients within complex medical institutions raises significant concerns for the health and well-being of nurses and their retention within these institutions.

The ethical issues they encounter are many; and although they are not often seen as prominent, they are significant nonetheless. Nurses in clinical care often manage multiple patients whose medical issues involve varying degrees of physiological and technological complexity in which these ethical questions arise.

Nurses encounter ethical issues in patient care related to poor work environments, staffing concerns and constraints to their professional advocacy role. These constraints may include disagreements and conflicts not only between patients and families, but also providers over goals of care related to truthfulness to patients in regard to their diagnosis and prognosis, informed consent and decisional capacity, end of life and aggressive patient care interventions, research at the bedside, allocation of finite resources and a host of other issues.

As one of the first research teams to examine the importance of ethical issues in clinical practice and the ethics-related stress that affect nurses' job satisfaction and retention, my colleagues and I found that nurses sometimes felt powerless to advocate for their patients and, in general, experience moral distress, reporting both physical and psychological burdens.

As moral agents, nurses sometimes feel that they cannot do what they believe to be ethically correct for their patients in a given situation because of various constraints. Such perceived roadblocks can lead to job dissatisfaction and costly job turnover.

The 2015 National Healthcare Retention and R.N. Staffing Report recently noted that the average cost of

R.N. turnover per hospital is 4.9 to 7.64 million. The high cost of turnover and any ensuing reductions in care clearly are not in the public's best interest.

So what can be done and why is ethics education important? Our concern surrounding the impact of ethics stress on nurses and others within the workplace led us to examine the role of ethics education and whether it would lead to greater confidence to address ethical concerns in clinical practice and to prompt nurses to act upon those concerns.

We found that only 51 percent of nurses had ethics education in their basic and/or advanced professional program, and about 23 percent of nurses reported no ethics education at all. Those who had no ethics education were less confident and less likely to take action when faced with an ethical issue, and they also felt less qualified than other medical professionals to seek out resources for assistance, lending and leaving themselves vulnerable to distress. Thus, there are concerns not only for the well-being of providers, but also for the care that they deliver. This study provided sound empirical data to support the normative value of ethics education. Every nurse, regardless of specialty or degree, needs and, more importantly, deserves excellent bioethics training as a foundation to clinical practice.

Our aging society, cost constrained environment, technological advancements and global interconnectedness will continue to raise profound ethical questions for healthcare professionals and their role within the broader system of healthcare delivery.

I see the goals of bioethics education in nursing as threefold.

The first goal is to stimulate students to critically reflect upon and question the values, beliefs and assumptions that they bring to clinical practice in an atmosphere that supports and respects diversity of intellectual thought, cultural paradigms and respect for persons.

Second, the hallmark of a liberal education for baccalaureate-prepared nursing student is to develop well-rounded citizens who can engage in morally relevant conversations that promote patient-focused advocacy and social good, and bioethics education certainly supports that mission.

Third, the intellectual rigor of a bioethics education can help future nurses gain confidence to navigate the competing demands and multiple alliances within the workplace and to overcome the sense of being caught in the middle between the physician and the patient, the patient and the family, or other parties engaged in challenging ethical issues.

Ethics preparedness can strengthen nurse's ability to work collaboratively with other healthcare providers, build confidence to speak about ethical concerns related to patient care and garner respect as valued members of the caregiving team.

Bioethics educators need more data and we need more funding for research that focuses on the critical role of bioethics education and its impact on interdisciplinary collaboration and quality of care as well as on-the-job satisfaction and retention of nurses, physicians and other healthcare providers.

We do not know whether or what kind of ethics education mitigates the ethical stress that providers face and whether it influences patient-related outcomes such as satisfaction with care, the therapeutic alliance and patients' decision making, including end-of-life discussions.

There is a lack of systematic data that could clarify which modes of bioethics educational learning, such as online, hybrid, face-to-face, interdisciplinary, and whether a single bioethics course or something that is integrated better prepare nursing and medical students to address ethical issues in clinical practice. Moreover, it is not clear on what the content of ethics education should actually be. One of my students most recently commented to me, "When I first signed up for this class" -- my class -- "I really wasn't sure what I was going to get out of it, to be honest. I thought what could I learn in an ethics class? I'm an ethical person. I will always do the right thing. I realized quickly that the right answer isn't always clear. I think more critically about what I should do professionally and what my mind is telling me emotionally. I try to come to an agreement between the two, but that isn't always possible."

So as nurses, our primary commitment is to the patient, whether that is an individual, a family, a group, a community or a population, according to a professional code of ethics. Beneficent patient care requires not only proficiency in understanding the biological mechanisms of disease, but also in the training and skills to address the everyday ethical questions that always follow, such as when are we doing more harm than good for a particular patient? Or how do I alleviate suffering and provide comfort when my patient continues to suffer?

To close my comments, I thank the committee for including nursing's voice in the conversation today. By doing so, you honor the profession by recognizing that we, too, do struggle with ethical issues in providing beneficent care for our patients and confirm the importance of bioethics inquiry and education for nursing practice in mitigating these struggles as an important public good.

One of the goals of the future of nursing reported by the Institute of Medicine is to transform education to meet the needs of the public. It is expected that nurses should be full partners with physicians and other healthcare professionals in redesigning healthcare in the United States. But in order to be full partners, we must first understand what educational competencies are needed to become leaders of change within institutions and the broader healthcare system. Ethics education must be part of this goal. Thank you for this opportunity.

DR. WAGNER: Thank you very much, all three of you, for those comments. May I -- it doesn't matter if you agree or not. I'm going to seize the opportunity to ask the first question.

This notion of ethics stress, for me -- this is the first time I've heard the phrase, actually -- suggests that among the things we should be educating about are not just principles of ethics, but a facility with the ability to apply those, be articulate about them; in other words, there's two -- two dimensions here. I would like the three of you to comment on that and perhaps where you think the greatest need is or are they just not separable?

DR. ULRICH: I think that's an excellent question and I think you're absolutely right. It seems to me that there is a critical gap, and what I hear from my students about what I actually teach within the academic arena, and then how that is translated actually to clinical practice and where that ethics stress actually occurs.

And so I think education is clearly key to talk about this issue of moral distress and how we can give strategies to students to deal with that once they get into the clinical arena. But I also think we need good role models and mentorship within that clinical arena to help alleviate some of that stress that they are

perceiving.

DR. JOFFE: I guess I might frame a response to your question in three ways.

The first -- as a practitioner of whatever faced with an ethical problem, the first thing that you might sort of identify to know that something is up is a sense of -- a big sense of uneasiness. And that is very disquieting. And so the first thing that we need to be able to help people with in the process of education, whether it bioethics education or professional education, is to be able to name and identify the source of that unease.

The second step, I might say, would be to be able to frame and understand it, sort of, you know, put it in context, understand its sources, begin to be able to reason with it in one's mind.

And I think the third thing and the thing that is most sort of impactful in addressing the stress aspect of things is then be able to understand what the first steps might be in order to address it; whom to talk with, whom to discuss it with, what actions you might take to alleviate it to address the source of the problem.

So I think bioethics education, whether it be for people who practice bioethics or people who are in nursing or medicine or whatever, might sort of help us think through each of those steps. Where is the unease coming from? What is it? How do I understand it? How do I frame it? And how do I begin to talk about it and then respond to it and act upon it?

DR. LITTLE: Can I have just one thought? I love that you talked about the importance of language and articulating. I think one of the most important things that ethics education does is not just teach certain algorithms for what's okay or not; though there's some rules that you need to know. Don't do surgery without consent, basic things.

But a lot of it, I think, is getting at the kind of subtle, nuanced, rich language that is ethical language because it helps you to interpret what you're seeing and that helps set the stage for how to think about it.

So an example might be, you know, the difference -- I'm looking at Anita's metaphor -- the difference between discrimination and subordination. That's powerful to people because it lets them name a reality that they might not otherwise have words for.

I'm thinking of your -- I love your discussion about ethics preparedness, too. Introducing people to the idea of moral remainder, we sometimes call it, or residue. So that sometimes even if you did the right thing, you'll have a sense of loss and regret. And that can be empowering to people.

DR. FARAHANY: A question, which is I was hoping to learn a little bit more about the Ethics Lab because I know we didn't give you a ton of time to be able to go through all of the exciting things that are happening in your realm there. But it looked like it's a project-based thing. I notice you adopt the word "lab." And so if you could both kind of talk a little bit about the concept and what the kinds of projects are and what the impact has been, that would be great.

DR. LITTLE: Yeah. Thank you.

So the idea behind the Ethics Lab is to take studio approaches to learning, which are project based, and, in this case, team based, that are designed to have value for the real world. So they're not pretend projects.

A lot of education is doing things that are assignments from your teacher to be delivered to your teacher, okay, which is not the real world.

So in Ethics Lab, we do direct impact projects with external partners, as well, but in terms of the educational idea, small classes where half the time is spent learning deep theory so that they have rigor, but half the time is being led by designers who are also philosophers. So we have a really extraordinary team that's very, very unusual. People who are design consultants, but trained in philosophy, too.

So how to do the kind of messy creative work that's involved in trying to have a new idea for getting around an intransigent problem, and then what it takes to actually make that happen. So, I mean, students end up -- one of them did some model legislation and lobbied Congress this year.

Another one -- another group was fascinated by antibiotic resistance, that problem, and did research and found out that their age group of college students is one of the worst offenders in not finishing their antibiotics. Tell your children, right? And so they designed a new campaign called "Finish Strong." We got them a graphic designer. They went to -- we had a contact at CVS. They literally got a CVS bag and unfurled it so that they could figure out how to make it and they produced new CVS bags and pitched it to the national -- talked to their distributors. So they're in conversation with CVS now.

Now, that's a -- those are students who, first of all, would never forget their ethics class and do the class not just in terms of I want to understand things, but I want to be a change agent.

DR. GRADY: Thank you, all. Three of my favorite people right here.

What struck me about your -- each of your comments, though, was how broad this discussion really is. I mean, Steve, you talked about specific needs for how we teach bioethicists who want to be scholars. Maggie, you talked about lots of interesting initiatives for a sort of broad engagement with ethics across the university community and the world, really, in terms of the MOOC. And Connie spoke specifically about the need for education for healthcare providers, in this case, nurses, which is very, you know, important for all kinds of healthcare providers, but certainly for nurses as well.

So it got me thinking about, you know, what ties all these together a little bit? And the question -- I mean, one conclusion that I can draw is everybody needs ethics education. I mean, that's -- and that may be not such a crazy conclusion, but it certainly is different than sort of focusing it, in a way. And I don't know. If you have any ideas about, you know, what ties these together, what kinds of lessons we as a Commission in talking about bioethics education might want to think about.

Let me just say one more thing about this. I mean, I think even from the world that I spend most of my time in, you know, people talk about teaching ethics or training in ethics and there's so many levels of what that means that it gets diffuse in a way that it's not useful anymore. So people talk about, you know, well, it means teaching people responsible conduct and research or teaching people how to go to the IRB or teaching IRB members or teaching, you know, doctors and nurses how to take care of patients or teaching fellows to do empirical research.

And to me, you know, it's all-important, but it's -- I don't know. It gets -- maybe we need to name it different things or maybe we need to think about what's the sort of common thread. So I'm inviting you to help me -- help me think that through.

DR. JOFFE: We're all looking at each other because it's such a big question. It's like where do you start?

I do think that we're talking about a range of different things. You know, there's the sort of -- the need that all of us have as citizens, members of the public to be able to engage with -- you know, most of the important issues at least have some ethical or normative dimension that we face as citizens, some of them are in the biospace and so that's where sort of bioethics education comes in for citizens.

Part of that is, I think, sort of going back to the conversations earlier, modeling how to have those conversations, which is, I think, you know, something that this Commission does and other groups like that. How do you even have those conversations across deep differences of basic commitments?

Part of it is particular skills. Part of it is particular intellectual traditions or bodies of literature. I think it's very hard to generalize across all of the groups that you've talked about because each group is going to need different things depending upon what they do in their lives, what they do in their work.

But some of the common threads are how to engage in respectful conversations, how to make normative arguments at sort of whatever appropriate level to one's role. And some of it is how to engage with evidence. And I think those are some of things, at least pieces of the puzzle, to begin to put together.

DR. ULRICH: I -- no, I was just going to agree with Dr. Joffe. I mean, I agree with him. I do think they are interconnected in some way in the sense that through ethics education and clinical -- and within the clinical arena, you can build confidence so that those particular individuals can then go out and speak from a public perspective and address those ethical issues at the public level that Maggie was speaking to. And also clinical individuals need research ethics because they are also seeing that research at the bedside and/or they might be an investigator of that research. So I do see them all interconnected in some way; yet they are distinct, but they also overlap in many ways.

DR. LITTLE: I just want to add one thing that I think it's important to see ethics education is not. So maybe it just does need a different name. When I talk to people about ethics education in medicine and nursing and allied professions, a lot of times they hear that as the police, the ethics police, and what they're really thinking of is compliance training.

And compliance training is unbelievably important because we've got some really good rules on the book and if you follow them, you're going to have better ethical outcomes by and large.

But I like to think of ethics as beyond compliance. It's what happens next. It's what Aristotle talks about. It's the aspirational. It's what are the goods we can reach for. And those are very empowering and expanding and they're not about the ethicists coming and telling me that you did something wrong.

DR. MICHAEL: So I have a question that was -- that's remarkably in line with Christine's, which is it makes sense with what Steven and Connie described in their remarks about the critical need to develop, you know, a cadre of individuals that have perhaps additional training on top of a professional degree or a scientific degree for reasons that are very clear, as well as healthcare providers and lodge your support for nurses.

I mean, my own clinical experiences, which continue to this day, I think nurses still haven't found enough of their voice. And part of that reason is because they lack the training compared to other healthcare

providers. And ethics is one of those points. You guys spend ten times the amount of time in the room than I do, so --

But my question really is for you, Maggie, because I'm trying to get my head around a comment that you made earlier, which I think really ties into a theme of democratic deliberation all day. I think it would be wonderful if we could figure out a way to connect all the dots and get to a point where Commissions like ours could potentially suggest to funders that there may be a rationale for certain projects, experiments, call them what you wish, to have a democratic deliberation on truly critical bioethics debates of our day that would get beyond some of the politicization of focus groups and, you know, other kind of interest groups that drive a lot of these debates.

So how can we do this in a way and how far -- how far down into the educational system would you drive? Would you go down into high school and middle schools? I mean, these kinds of issues, to me, are so cross cutting. I don't think they need to -- you know, to necessarily start with -- with, you know, wonky stuff like the Belmont Report. But they could just help the general -- the general citizenry to understand how we can, you know, be the best human beings, how we can contribute to society.

DR. LITTLE: One of the things that strikes me most about the MOOC, we've got -- you get all the analytics so you can stalk people online and see what they're doing. Okay? And if users share information, you can also see where they live and how old they are, if they share that. And we've a 13-year-old to a 92-year-old this time. Okay?

So that, again, is that power of. It shouldn't just be for undergraduates at elite universities, right; though I think that is incredibly important. If you go to an elite university, you need even more ethics training because you're probably going to have outsized push on the lever, right? So we want you to do it well.

But I completely agree with you and I love the idea of you all getting some project that gets, you know, conversations in a deliberative way that -- and just to say what -- to reinforce, you said "beyond polarization."

So, you know, the analogy I like to use for how bioethics conversations usually go or any polarized issue, you know, Google search engines now get to know you, so they give you the results that they know you want. That's how conversations go with bioethics these days. That you're only seeing views of the people that you're talking to and you're only talking to the people who already agree with you, which leaves the other in some black box that obviously is somebody who's stupid or ignorant as opposed to good and reasonable people disagreeing. We could use all of us together to get somewhere on these really difficult issues. So I think you should do that.

DR. JOFFE: Just to quickly follow up, some years ago, Millie Solomon, whom I called out during my remarks, led a project to develop a bioethics educational curriculum for high school I believe in collaboration or funded by your department. You know, you may want to speak to that more. But I think it's certainly not too early to start. And, in fact, you know, my kids when they were in middle school, loved to talk about these issues with their friends. So one can engage kids really quite early.

DR. GUTMANN: A perfect segue to my question. How -- Steve, you spoke to how important it is for people who have a specialization and have been trained in ethics to know something about social scientific and scientific methods and methodology. And I assume you would say the converse, that it's

really important for specialists in medicine and nursing and science to have a fluency in ethics, ethical principles, ethical reasoning. Right?

The -- the -- I'll ask this as a rhetorical question. Isn't it essential -- I mean, and feel free to say no if this is the answer -- but it would seem to me to be essential. So isn't it essential that we begin earlier than nursing education and medical education to do this?

Because my observation is that by the time you get to nursing school or medical school, adding -- for those who have been trained, as most have been in the science because the requirements of getting in are you do, you know, organic chemistry and you've checked off all the boxes.

Ethics requirements are seen as peripheral to the core of what you're learning when you're in medical school and nursing school. That's becoming less so, but I submit to you that partly it's becoming less so because we're getting earlier education that's interdisciplinary.

So don't we -- I'm not trying to suggest that we shouldn't have those requirements in medical school or nursing school, but don't we have to start earlier so it still seems exciting, those ethical questions still excite people rather than seem like, oh, my gosh, we have to take this bioethics requirement. And as you know, Steve, it's not among the most popular requirements at the Perelman School of Medicine. And we pride ourselves on training ethical doctors and we pride ourselves on training ethical nurses.

So -- and we know -- so let me just cite a fact apropos of the spirit of Steve's, you know, main point. Right? It's a fact that until the public started demanding patient access to medical records, doctors just didn't want to do it. And now it's considered an important ethical practice that patients have access to information about themselves. But that did not happen because there was a movement among ethical doctors and nurses to say we really realize that we're being too paternalistic and our patients aren't able to see what their medical records are.

Now, I understand there are downsides to that as well, but the fact is that it took a patient -- it took patients wanting them, really wanting them, to motivate professionals to change in what is an ethical way if you respect your patient.

So that's a long preface to don't we have to do -- is the tying thread to Christine's question that we've got to, as a Commission, figure out ways of recommending both ethics and science integrated education early in the life of our citizenry?

DR. JOFFE: So since it was a rhetorical question from my university president, I will enthusiastically agree. But –

DR. GUTMANN: It is rhetorical because I would be deceptive if I made it sound like a riddle. But how do we -- the real question is how do we do it?

DR. JOFFE: Well, let me say two things. You know, we talked about starting in high school or even earlier. To the extent that bioethics starts to become available or ethics starts to become available to undergraduates, you know, stepping one step earlier than professional schools, I think there's a great deal of enthusiasm, as you probably know, at Penn over the last couple of years. We've instituted a minor. The enthusiasm has been great and growing. So it really -- there is great enthusiasm for engaging with ethical

issues, particularly bioethical issues, really early on in one's education.

The other point I want to make is that we talk about the role of ethics education and professional schools. And, you know, my concern is actually sort of compartmentalizing ethics education; that it's a module that you do for one month in January of your first year or something like that. Not only am I not convinced that that's the most effective way to do it, but there actually may be some real downsides to doing that.

And what I would like to see, although it's very challenging, is a much more integrated, infiltrated sort of just there in the background all the time. To me, it would be a much more effective way of doing ethics education in professional education.

DR. GUTMANN: That's very helpful because I hate the idea of just saying we have to do it earlier. That's also suggesting that we have to really think about how to better integrate it into professional education. And I'm sure there are models of that around.

DR. ULRICH: I also think you raise a really important question about what is the value of bioethics within professional schools. How do we value that, especially when the curriculum is so filled with other priorities and ethics is not necessarily seen as a priority. And so I think we need to change that perception because I see it so relevantly with my students when they are in the clinical arena that they need it. And they come back to me afterward and say, "Thank you for teaching me bioethics. Now I see the value of that once I'm in that actual clinical arena and see all of the ethical issues that I face." So I think it's the perception of the value within our curriculum and we have to change that perception.

DR. WAGNER: I want to make sure to get to --

DR. JOFFE: Can I just quickly say --

DR. WAGNER: Oh, sure.

DR. JOFFE: -- one more very quick thing in response, which is the value of just-in-time bioethics education. So in the first-year medical courses that I've taught, there are issues that are very abstract for first-year medical students because they're not going to face them until they're residents or beyond. Whereas when they're talking about the issues that they're going to face as third- and fourth-year medical students, feeling like they're being asked to put in an IV when they're not trained and they're not adequately supervised and nobody's looking over their shoulder helping them to do that, those are the things that really get their attention.

And I think over and over again what has struck me is the things that get people's attention are the things that they either face today or can see themselves facing in the near future as opposed to the more abstract issues that they won't confront for many years.

DR. WAGNER: Let me just slip in before -- I've got Nita and Dan and then I'll come back to you, Christine.

We need to bear in mind that we also are looking at the educational challenge from a particular perspective that isn't broadly -- and we -- isn't broadly adopted. Connie -- well, all of us are talking about the need for this, the need for this. And yet in higher education, as you know, there's been some

resistance.

It's not that many years ago that Stanley Fish's book got so much visibility; "Save the World on Your Own Time" was the name of the title -- was the title of that book. The point that educational institutions absolutely should not be doing this. And it's something that I hope we'll have maybe -- when we get the whole team together here, maybe we can have a little more conversation on why it is it must be done.

And, Nelson, I caught you saying something I bet you didn't mean to say, and that was making certain that there's ethics education on top of professional education. What I hear this group saying is ethics education throughout, within, just-in-time, as part of.

DR. GUTMANN: That's of a piece of the therapeutic misconception. Stanley Fish is the -- it similarly misunderstands what ethics is. I mean, and this goes to what each of you have spoken to. Steve, you spoke to it most directly. If you don't know what your odds are, what are the odds of your dying from influenza if you don't get a flu vaccine? And how does that compare to your odds of dying from ebola if you're an American citizen?

That's part -- to understand the relevance of those facts are part of understanding the ethical issue of whether -- what good public policy is, good public policy, ethically good public policy, scientifically sound public policy. And if that's not relevant to professional education or to our undergraduate education of a good citizenry, then nothing is. And that's both ethics education and it's science education.

Now, answering that question isn't the all -- you know, doesn't tell you everything you need to know about ethics or about science. But if you don't even understand that that's a relevant question and if you don't understand, can't continue to reason beyond that, both ethically and scientifically speaking, we're not doing our job. So I just think --

DR. WAGNER: Maybe part of our job is to do that.

DR. GUTMANN: So the is-ought separation, which Millie Solomon was respecting, but challenging how separate they can be kept, I think is critical to basically having good ethics and good science.

DR. WAGNER: Anita?

DR. ALLEN: Thank you.

A little bit earlier in response to Christine Grady's question, we were distinguishing between professional education, researchers, nurses, pre-professional students at an elite university. I know you've also taught military officers in the past ethics. Yes. And that's all very important. We can all agree that it's very important that we provide medical education plus ethics education for these groups of people. It's very important whether it's more compliance oriented or more deeply personal ethics oriented or it's all important.

The question I want to ask, though, is this: So one of the things I think we've learned over the last several years on this Commission is that some of the most shocking instances of medical ethical or biomedical ethical misconduct had been aimed at particular groups of people: African Americans, indigenous Americans, LGBT people, people with mental illnesses, children in orphanages, soldiers, enlisted soldiers.

And so the question I have: Is there a need, do you think, for a special kind of -- I don't know -- pull out ethics education aimed at empowering people who belong to traditionally ethically disadvantaged groups to arm them against the misconduct that may come their way precisely because they're members of one of these groups.

So, you know, I hate to call it victim education, but I kind of want to. You know? I mean, it's different from trying to make sure that the next generation of researchers and nurses are competent to deal with what they face in -- you know, the clinic or the in hospital or in the workplace. But it's an important part of being a well-informed citizen, but citizen/potential victim because, unfortunately, certain people are more likely to be the targets of misconduct than others. So how do we think about the education of these kinds of groups?

And, again, do we just say, well, they'll get it automatically in the course of being, you know, out there? Or do we say, no, we have to have special curriculum, classes, opportunities to target groups that have been harmed in the past? Anyone's thoughts? Everyone's thoughts?

DR. JOFFE: You know, I thought you were going to ask an easier question as you were getting started --

DR. WAGNER: Answer that one.

DR. JOFFE: -- which don't we need to call attention to these issues for all of us? And there, I think, the answer is clearly yes. We need to understand the history, we need to understand the risk, we need to understand these issues of disadvantage and discrimination and all of that.

I'm actually not sure what to think about your question of targeting education to members of groups who have been the victims of disadvantage, of, you know, abuse of the things that have happened. Because my instinct is we all need this. And so to arm particular groups, well, let's arm all of us with the ability to call these things out, to identify them, to respond to them.

I'd be very interested to hear what others think, but the truth is I'm really not sure that -- that I am clear on my own opinion in response to what you're asking.

DR. ALLEN: Can I just add something? So when I first taught philosophy as a grad student at the University of Michigan, I was teaching a standard political philosophy classes as a TA. And one of my minority students came up to me and said, "Why don't you teach black philosophy?" And I said, "Why do I need to teach black philosophy? I mean, Aristotle, Plato, they speak to all of us. The issues are perennial and universal." Right? Wasn't a good response. Right?

So I'm going to respond a little bit like that to your -- your -- I'm not going to let you off the hook. All right? Because I do think that there's a demand or there's like a need, a sense of -- a felt need -- a felt need among some minority groups to have something aimed just at them because their experience is different from the experience of other people; and, therefore, they might need to have what I might call a "pullout ethics curriculum" of some sort to really empower them.

And one last thing, the most disappointing talk I've ever given, or at least in the last five years, Harvard Medical School. I went to speak last year to the Ph.D. students at Harvard Medical School who are studying to become researchers. Their eyes rolled back in their head when I started talking about

Tuskegee, Guatemala. They just didn't want to hear it, you know. It's like, oh, well, that stuff from Nuremburg, that's old stuff. You know, we're -- you know, so it's not the case that all groups hear these experiences and these stories in the same way. And that's why I'm tempted to think that it's still important not just to focus on general ethics education -- we all need it -- but to actually have some special context in which people, again, who are more -- whose history has been one of discrimination or being targeted or who have those anxieties about the present might need something different than other people might need.

DR. LITTLE: So I'm fascinated by this now. Three things. First, I really agree with you that what a pedagogical experience is like for somebody who's a member of a group that has an earned mistrust of the institutions that we're talking -- whose ethics we're discussing, okay, is going to have -- really hear that differently.

Second, I think it also really depends on who is doing the teaching. It will matter if it's Anita Allen, an African American accomplished woman, leading a conversation with certain people. So there are identity, politics and issues here. So I love the "pullout" idea.

And then I'm, third, wondering if there's some model that's a little bit like the truth and reconciliation model. Do you know what I mean? Because what we don't want to do -- we want -- so I wrote down "ethically empowered," which is also what you're talking what with the nurses. Right? So I just think that as a theme is fantastic. So what does ethical empowerment as opposed to ethical education look like? Awesome. I'm going to keep thinking about that.

At any rate, I could see some of it being pullout, but then wouldn't it be amazing to have a next generation after that. Where it is, I don't even know what it looks like, but it's not reinforcing "you are the victims over here, so we had a special session where you can speak openly, and you all are the oppressors whose fathers did all of this so we'll have a separate session for you." We can't end there, but we probably can't just jump to an integrated education system approach to it either.

DR. ULRICH: I'd like to echo the sentiments of my colleagues. I don't think, you know, as an educator and educating many students that it is incumbent upon the educator to provide a safe environment within that classroom that allocates a variety of different methods, that allow students to voice their opinions in an environment that is safe and is also respectful. And I think it goes back to respect for the persons and respecting that different students come from different cultural paradigms and different ways of thinking. And so I have found that in providing a safe and open environment, that seems to work best in having these very, very sensitive discussions with respect to Tuskegee and the Guatemalan experiments.

DR. SULMASY: I'll join others in thanking the three of you for some really fine presentations. I appreciate them.

One thing I didn't hear that I'd be interested in hearing your responses to is the question of a role for virtue education in higher education. I think we all know that taking a course in bioethics doesn't make one a good nurse or physician, just as having a Ph.D. in philosophical ethics doesn't necessarily make one a good person.

And I first thought of it, you know, in terms of just professional education. But I think, you know, that also some of what we're talking about in terms of democratic deliberation and this sort of long reach of bioethics calls for virtue, too. The virtue -- respect is really a virtue, right, that people have to cultivate in

public discourse.

Or I was even thinking of the person who is in the role of being a surrogate decision maker, which almost all of us will be at some point. Requires courage, prudence, temperance.

But the question is can we do any of that in secondary or in higher education, or is it all over, you know, from grammar school or the home? And is there a role for trying to teach virtue in higher education around issues of bioethics?

DR. JOFFE: You know, I think when we were talking a few minutes ago about -- not sort of calling out bioethics education, at least in the professional realm into, you know, a one-time month module some time in the first year curriculum, but, rather, infiltrating it through, that, to me, sort of speaks to a virtue model because what you're trying to do there is, again, in sort of realtime, just-in-time kind of ways be able to address the values, the virtues that underlie the actions that we take.

I'm not sure. I'd be very interested in others' thoughts about how to do virtue ethics education didactically. It seems to me like the sort of thing that requires sort of education in the context of practice as opposed to didactic education. But maybe there are models that work that I'm not familiar with.

So that seems to be a critically important approach or way to approach bioethics education. In fact, I think it would be deficient if it wasn't key to it. But it seems to me to be the kind of thing that calls for being integrated into the practice as opposed to separated out into some sort of a didactic phenomenon.

DR. LITTLE: I agree. I think there is also some role for didactic. So, once again, getting at nuances of the virtues. So I have a colleague who teaches a beautiful class on the virtues where she has an explore and disentangle and query and probe. So what is humility, given that it shouldn't be subservience? Or what is caring, given that it shouldn't be self-sacrificial or projecting your own angst onto the person you're caring for?

So I do think just some theoretical explanations of virtue can also be illuminating. And then, yes, the person who is talking about it better be practicing the virtues as they are teaching them or else you're going to send a pretty dangerous message.

DR. GUTMANN: There is some evidence here to support both the importance, as Dan underlines and what Steve's answer is of the best teaching is not didactic teaching not only for virtue, but even for understanding what -- things moving forward.

So I once wrote an essay which I called, "Can Virtue be Taught to Lawyers," which just by the title got a lot of attention. And the answer was, yes, by the way. And could -- the same question could asked could virtue be taught to doctors, it wouldn't elicit quite the same because of the Hippocratic Oath and so on.

But the answer, which there's some evidence of vast array of philosophicals, as well as some empirical evidence now, is that by deliberating -- so when you take your patient seriously or when you take your clients' needs and interests seriously and engage with them -- in the case of lawyers, I use the example of Justice Brandeis, but you could use -- you could take examples in the medical field of a doctor who both advises patients, but listens to the patient's needs and desires -- that's a much more effective way of teaching virtue than -- so you model it, but you model it in a certain way as a professional and you can

teach it to medical students by actually having them engage in that in an in-time kind of way.

That's not the only way of doing it, but -- and I would love to hear Dan -- Dan practices this, so I think it might be nice for the public record for Dan to answer his own question. But as somebody who doesn't practice it in law or in medicine or nursing, but who studies it and has taught and written on it, I think the answer is clearly yes and it's important to do it, and deliberation is one way of engaging students in a way that's experiential enough that it develops a kind of character trait of respect for the vulnerable people that you're going to be dealing with as a professional.

But, Dan, would you be willing to say something in answer?

DR. SULMASY: Maybe I'll let Connie speak first. That's actually a virtue.

DR. ULRICH: I was going to say I would love to hear Dr. Sulmasy's response, but I agree with what you just said, Dr. Gutmann. I think virtue ethics can be taught. I think it should be taught. It should also be role modeled. I think when you think about the patient-provider relationship, it is relational. And that means virtues such as compassion, such as caring, human dignity, those type of virtues, and that can be taught and it should be role modeled within the institution.

DR. SULMASY: Yeah, I think there is, sadly, at least within medical education, evidence that we know of, some of which it comes out of folks from this institution, there's actually a decline through the course of medical education in this sort of compassion, empathy, even confidence about ability to address ethical issues of students. And that leads some people -- some people to be cynical.

But I take the view that this is actually evidence that, you know, people can change, right? If they can change for the worse, they can change for the better. And if we can reconfigure the way we do things, I think there is a role for some teaching about -- in a didactic way about virtues. But I think, by and large, it needs a cadre of role models who will really be the sorts of persons who students can look up to, who won't actually denigrate what's been taught to people in their first-year classes, but exemplify and show how it actually can be put into practice in respecting patients and actually obtaining an informed consent where the understanding and participation and actual consent of the person counts, and not merely a signature on a piece of paper.

The ways in which to have conversations with patients about very difficult questions of whether to forgo life sustaining treatments, all of which are better taught experientially at the bedside by a group of role models. And I think that's a critical adjunct. And we miss a lot of that when we concentrate on just teaching in classrooms and teaching ethics, even teaching about the virtues, which can be done in a way that is virtuous. But I think for professionals, at least, teaching at the bedside is the best way. Which, of course, we have Whistler to thank for having told us that a long time ago.

DR. WAGNER: Let's ask Christine to give the final question.

DR. GRADY: The million-dollar question. I actually just wanted to pull out something, I think, that Connie explicitly said, but everybody sort of has pointed out, including our commissioners; and that is, although we're debating, you know, who needs education in bioethics and at what stage in life and how to do it, we don't have enough evidence-based information about what the content ought to be.

So virtue ethics may be one thing and there are certain ways to teach it, but, you know, some of the courses that are taught in nursing schools or medical schools or undergraduate level or even the high schools, the lucky ones that have it, the content is all over the place and it's not all based on any evidence that it works.

And so there should be some accountability for evidence to say this is the kind of education that makes a difference in the way we think we ought to be making a difference. So I just wanted to make that point.

DR. GUTMANN: Can I just add to that just to be fair across the board? To be fair to ethics -- you can say that about every empirical course that's taught, including organic chemistry. There is very little evidence as to what the actual learning impact is. And I'm not saying that from a skeptic's perspective. I'm saying that, actually, to underline Peggy's point.

Whatever else you think about MOOCs, they're giving us an opportunity to look -- because of the big data aspect of it and the amount of evidence that is out there, ethically out there, they're giving us an opportunity to learn more about learning.

Somebody once told me a long time ago, and I took this to heart, a very wonderful teacher that I had, it's not what you teach that counts; it's what they learn. And that led me to do a feedback loop in teaching to find out what my students thought they were learning.

So I think that's right about ethics, Christine, but I would just say that too many people -- and I know you're not doing this, but too many people target ethics courses for that and they don't target all those other courses that we take for granted because they're core to the curriculum and we know just as little about what students learn from them that's professionally relevant.

DR. GRADY: Yeah, I would agree with that. That's probably more universally true than not. But it doesn't take away from the, probably, need to get some evidence. And I think, you know, so much of what we think teaching ethics is about, you know, sometimes it's about talking about abortion, sometimes it's about how to talk to the patient, sometimes it's about, you know, following the rules. I mean, there's a lot of variety in terms of what people think about when they think about learning ethics and teaching ethics.

DR. WAGNER: Maggie.

DR. LITTLE: I just wanted to say I do think there's really reason to be optimistic. I think this point about our not having learning outcomes measurement for all sorts of education -- so it's not just content; it's style, how it's done, it's curricular impact -- is really -- I think it reaches a tipping point. Now they're actually going to Ph.D. programs that are training people to do learning analytics.

And I have to give props here to Georgetown. It has an amazing center that a friend of mine founded ten years ago, Center for New Designs and Learning and Scholarship, where it's an empirically based assessment school. And they're just now starting to launch a quantitative measure of students coming into Georgetown as freshmen. They'll be followed all four years to see how they measure on certain virtue scales that we call the Magis measures. So trying to see as they do some more ethics across the curriculum, does it take a long time to get the data. But it's exactly what we need.

DR. JOFFE: I think there's a more fundamental question underlying your question, Christine, and it really is the thing we've been addressing for the last hour-and-a-half and it even goes back to your first question, which is not just what's the appropriate content for various groups of learners, but what are the goals of bioethics education for various groups of learners. We've been having that conversation, but I think it's still something where there's room for good, clear thinking and advice.

DR. WAGNER: Anita, go ahead.

DR. FARAHANY: I have a quick question, which is: Christine, I took your question to a little different rather than just about outcome measure, but content of courses, meaning there is no kind of curriculum for bioethics as to what would be agreed as what would be taught.

So, you know, we were talking over lunch casually about the proliferation of master's programs across the country. And if you look, there's some consistency in what they're teaching, but there's also a lot of divergence in what they're teaching, with the idea that bioethics is not its own discipline but a discipline that's drawing from a lot of different disciplines.

So it might be useful in this conversation or in the broader conversation we're about to have about not just how we might measure outcomes, but also what the substantive content. You know, if you were -- so I took that to be what you meant. And that might be, you know, kind of useful to talk about is virtue a philosophical foundation of a science policy and what are the principles? What are the things -- you know, the kind of assessments that you might say. This is a person who is trained in bioethics, actually knows these set of things.

DR. FARAHANY: I think I did mean content, substantive content. But I think Steve's point is absolutely critical about, you know, we can't even begin to talk about what the content should be until we know what the goals are. And then it is connected to, you know, outcomes and accountability, like what Dan was talking about earlier. So they're all connected in that way.

DR. WAGNER: Interestingly, that is going to -- the conversation on that thread is going to continue to our next session. Before we thank you, I want to remind you to stay where you are because we need you as part of our next session. Connie, Maggie, Steve, thank you.